

II B.Tech II Semester Supplementary Examinations, Aug/Sep 2008

ENVIRONMENTAL STUDIES

(Common to Civil Engineering, Electrical & Electronic Engineering, Mechanical Engineering, Computer Science & Engineering, Chemical Engineering, Electronics & Instrumentation Engineering, Bio-Medical Engineering, Information Technology, Electronics & Control Engineering, Mechatronics, Computer Science & Systems Engineering, Metallurgy & Material Technology, Production Engineering, Bio-Technology and Automobile Engineering)

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. Mention briefly the contributions made by the following:
 - (a) BNHS
 - (b) Indira Gandhi
 - (c) Botanical Survey of India
 - (d) Madhav Gadgil

[4+4+4+4]
2. Write briefly about each of the following alternative sources of energy, bringing out advantages and problems.
 - (a) Wind power.
 - (b) Tidal power.
 - (c) solar energy.

[16]
3. (a) What are the different kinds of grasslands in India and where are they found? Describe their characteristics.
(b) What are the threats to grasslands and what should be done to conserve them?

[8+8]
4. (a) Explain the concept of ex-situ conservation and illustrate your answer with examples.
(b) What is an Integrated Protected Areas and how does it help in conservation of biological diversity.

[10+6]
5. (a) Oceans are ultimate sink for most of the waste we produce. Explain.
(b) List off shore sources of Marine Pollution.
(c) Explain the effects of oil pollution on the ocean.

[8+4+4]
6. Discuss briefly the provision of the following Acts:
 - (a) The Water (Prevention Control of Pollution) Act ,1974

- (b) The Air (Prevention and Control of Pollution) Act, 1981
 - (c) The Wildlife Protection Act 1971
 - (d) The Forest Conservation Act of 1980 [4+4+4+4]
7. (a) Write briefly about the environmentally caused diseases which affects children.
(b) Explain the concerns for women and child welfare. [8+8]
8. Explain the causes and effects of air pollution by describing any urban or industrial area that you have studied. [16]

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1. (a) Explain the need for students from all courses to be aware of environmental issues.
(b) Write briefly about the scope of environmental studies. [6+10]
2. Discuss the importance of environmental studies with respect to the following statements.
(a) We live in a world wherein natural resources are limited.
(b) Green spaces and gardens are vital to the psychological and physical health of city dwellers. [8+8]
3. (a) What do you understand by energy flow in an ecosystem?
(b) Describe the water cycle and the nitrogen cycle. [8+8]
4. Discuss the aesthetic value of nature with respect to the following statements.
(a) A true wilderness experience is an incredible learning experience.
(b) The beauty of nature encompasses every aspect of the living and non-living part of our earth. [8+8]
5. (a) Oceans are ultimate sink for most of the waste we produce. Explain.
(b) List off shore sources of Marine Pollution.
(c) Explain the effects of oil pollution on the ocean. [8+4+4]
6. (a) What is acid rain? What are the causes and effects of acid rain ?
(b) How can the formation of acid rain be avoided? [8+8]
7. Write about some of the ideas and concepts of environmental ethics. [16]
8. What are the problems encountered in the disposal of solid waste from various sources. Describe the outcome of poor management of solid waste, illustrating your answer with any case-study. [16]

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1. Write a detailed note on the role of various organizations in the field of the environment and their contribution to better management of resources. [16]
2. (a) Discuss in detail the water cycle.
(b) Write about sustainable water management. [8+8]
3. (a) Explain the significance of preserving balance in various kinds of ecosystems. Illustrate with examples.
(b) Describe the structure and functions of an ecosystem. [8+8]
4. (a) List the main biogeographic zones in India and state where they are located.
(b) What are the different values of biodiversity and write briefly on them. [6+10]
5. (a) Oceans are ultimate sink for most of the waste we produce. Explain.
(b) List off shore sources of Marine Pollution.
(c) Explain the effects of oil pollution on the ocean. [8+4+4]
6. Discuss briefly the provision of the following Acts:
 - (a) The Water (Prevention Control of Pollution) Act ,1974
 - (b) The Air (Prevention and Control of Pollution) Act, 1981
 - (c) The Wildlife Protection Act 1971
 - (d) The Forest Conservation Act of 1980 [4+4+4+4]
7. Explain how the growth of human population on earth is a threat to the environment. [16]
8. (a) Describe how you would methodically record the elements and resources in an ecosystem and assess its functioning.
(b) Write about your observations and main conclusions about any ecosystem which you have studied (e.g: forest, sea shore, farmlands, hilly area etc.) [8+8]

Code No: R05220105

Set No. 3

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1. Explain the different areas of environmental conservation to which people belonging to different disciplines can contribute. [16]
2. (a) What do you understand by biotic and a biotic parts of nature?
(b) Explain the interaction and interdependency of these. [6+10]
3. (a) What is a food chain and food web? Describe the organisms which typically occupy various levels in an ecological pyramid?
(b) What are the major types of ecosystems in the world? Write about any one briefly? [8+8]
4. (a) Write a brief note on biodiversity and ecosystem diversity.
(b) Explain the evolution of diverse species in an ecosystem. [16]
5. (a) Explain the major water pollutants and their effects.
(b) Explain the significance of dissolved oxygen in rivers. [10+6]
6. (a) What are the major issues associated with resettlement and rehabilitation?
(b) Bring out the main elements of water conservation. [8+8]
7. Write a detailed note on the importance of developing environmental values for sustainable human development. [16]
8. (a) Describe how you would methodically record the elements and resources in an ecosystem and assess its functioning.
(b) Write about your observations and main conclusions about any ecosystem which you have studied (e.g: forest, sea shore, farmlands, hilly area etc.) [8+8]
